AUTHOR INDEX

Ahlquist, C. N., Characterization of in-plane wafer distortion in an n-channel metal oxide semiconductor (NMOS) production process, 104
Angel, David L., A comparison of silver halide systems as applied to today's advanced semiconductor requirements, 156
Bond, R. A., Macroelectronic photolithography: I—the optimization of photoresist application by roller coating, 74
Ceglio, N. M., Ultrathick photoresist processing, 64
Ciarlo, D. R., Ultrathick photoresist processing, 64
Cody, R., Registration and wafer distortion in the production environment, 96
Coleman, Harry L., Nearly perfect reticles for direct wafer steppers, 19
Cowan, M. J., Feature size variation of electron beam exposure system master masks, 110
Doran, Robert E., Relationship between micro and macro reproduction characteristics of Kodak high resolution plates, 175
Helm, R. F., Feature size variation of electron beam exposure system master masks, 110
Hershel, Ron, Optics in the model 900 projection stepper, the, 39
Hester, J., Registration and wafer distortion in the production environment, 96
Hockey, M. A., Evaluation of deep-UV proximity mode printing, 32
Hutt, Marvin, Tradeoffs between uniformity, selectivity and pattern fidelity in plasma etching, 46
Johnson, Paul H., A comparison of silver halide systems as applied to today's advanced semiconductor requirements, 156
LeBeau, Barry, Characterization of Al-Si plasma etching and its effect on metal oxide semiconductor (MOS) electrical parameters, 61
Levine, J. E., Photoresist coated chromium-on-glass substrate parameters and their effect on photomask yield, 142
Loebach, Ernst W., A new step-by-step aligner for very large scale integration (VLSI) production, 9
Long, Mary L., Goal-oriented process tuning, 194
Martin, J. E., Registration and wafer distortion in the production environment, 96
Massetti, D. O., Evaluation of deep-UV proximity mode printing, 32
Mayer, Herbert E., A new step-by-step aligner for very large scale integration (VLSI) production, 9
McFarland, D. L., Evaluation of deep-UV proximity mode printing, 32
Naguib, H. M., Macroelectronic photolithography: I—the optimization of photoresist application by roller coating, 74
Novotny, Donald B., Experimental photoresist sensitometry and exposure modeling, 184
Nyyssonen, D., Calibration of optical systems for linewidth measurements on wafers, 119
Ruddell, R. L., Optimization of photoresist processing for step-and-repeat exposure systems, 84
Schick, H. C., Photoresist coated chromium-on-glass substrate parameters and their effect on photomask yield, 142
Schmidt, Michael A., Goal-oriented process tuning, 194
Schneider, William C., Intermachine registration errors of wafer step-and-repeat systems, 26
Schnitzer, Arthur P., Automatic yield prediction from photomask inspection data, 132
Selbrede, Steven C., Dimensional control and profile contouring of plasma etched polysilicon, 53
Shaughnessy, T. P., Optimization of photoresist processing for step-and-repeat exposure systems, 84
Speck, Richard P., Practical aspects of automatic mask inspection, 127
Tsai, N. H., Characterization of in-plane wafer distortion in an n-channel metal oxide semiconductor (NMOS) production process, 104
Vesper, C., Registration and wafer distortion in the production environment, 96
Wittekoek, S., Step and repeat wafer imaging, 2
Wourms, Bob, Characterization of Al-Si plasma etching and its effect on metal oxide semiconductor (MOS) electrical parameters, 61

SUBJECT INDEX

Al-Si plasma etching and its effect on metal oxide semiconductor (MOS) electrical parameters, characterization, 61
Aligner for very large scale integration (VLSI) production, a new step-by-step, 9
Automatic mask inspection, practical aspects of, 127
Automatic yield prediction from photomask inspection data, 132

Beam exposure system master masks, feature size variation of electron, 110

Calibration of optical systems for linewidth measurements on wafers, 119
Characterization of Al-Si plasma etching and its effect on metal oxide semiconductor (MOS) electrical parameters, 61
Characterization of in-plane wafer distortion in an n-channel metal oxide semiconductor (NMOS) production process, 104
Chromium-on-glass substrate parameters and their effect on photomask yield, photoresist coated, 142
Coated chromium-on-glass substrate parameters and their effect on photomask yield, photoresist, 142
Coating, macroelectronic photolithography: I—the optimization of photoresist application by roller, 74
Comparison of silver halide systems as applied to today's advanced semiconductor requirements, 156
Contouring of plasma etched polysilicon, dimensional control and profile, 53
Control and profile contouring of plasma etched polysilicon, dimensional, 53

Deep-UV proximity mode printing, evaluation of, 32
Dimensional control and profile contouring of plasma etched polysilicon, 53
Direct wafer steppers, nearly perfect reticles, 19
Distortion in an n-channel metal oxide semiconductor (NMOS) production process, characterization of in-plane wafer, 104
Distortion in the production environment, registration and wafer, 96

Electrical parameters, characterization of Al-Si plasma etching and its effect on metal oxide semiconductor (MOS), 61
Electron beam exposure system master masks, feature size variation of, 110
Errors of wafer step-and-repeat systems, intermachine registration, 26
Etched polysilicon, dimensional control and profile contouring of plasma, 53
Etching and its effect on metal oxide semiconductor (MOS) electrical parameters, characterization of Al-Si plasma, 61
Etching, tradeoffs between uniformity, selectivity and pattern fidelity in plasma, 46
Evaluation of deep-UV proximity mode printing, 32
Experimental photoresist sensitometry and exposure modeling, 184
Exposure modeling, experimental photoresist sensitometry and, 184
Exposure system master masks, feature size variation of electron beam, 110
Exposure systems, optimization of photoresist processing for step-and-repeat, 85

AUTHOR INDEX

Ahlquist, C. N., Characterization of in-plane wafer distortion in an n-channel metal oxide semiconductor (NMOS) production process, 104
Angel, David L., A comparison of silver halide systems as applied to today's advanced semiconductor requirements, 156
Bond, R. A., Macroelectronic photolithography: I—the optimization of photoresist application by roller coating, 74
Ceglio, N. M., Ultrathick photoresist processing, 64
Ciarlo, D. R., Ultrathick photoresist processing, 64
Cody, R., Registration and wafer distortion in the production environment, 96
Coleman, Harry L., Nearly perfect reticles for direct wafer steppers, 19
Cowan, M. J., Feature size variation of electron beam exposure system master masks, 110
Doran, Robert E., Relationship between micro and macro reproduction characteristics of Kodak high resolution plates, 175
Helm, R. F., Feature size variation of electron beam exposure system master masks, 110
Hershel, Ron, Optics in the model 900 projection stepper, the, 39
Hester, J., Registration and wafer distortion in the production environment, 96
Hockey, M. A., Evaluation of deep-UV proximity mode printing, 32
Hutt, Marvin, Tradeoffs between uniformity, selectivity and pattern fidelity in plasma etching, 46
Johnson, Paul H., A comparison of silver halide systems as applied to today's advanced semiconductor requirements, 156
LeBeau, Barry, Characterization of Al-Si plasma etching and its effect on metal oxide semiconductor (MOS) electrical parameters, 61
Levine, J. E., Photoresist coated chromium-on-glass substrate parameters and their effect on photomask yield, 142
Loebach, Ernst W., A new step-by-step aligner for very large scale integration (VLSI) production, 9
Long, Mary L., Goal-oriented process tuning, 194
Martin, J. E., Registration and wafer distortion in the production environment, 96
Massetti, D. O., Evaluation of deep-UV proximity mode printing, 32
Mayer, Herbert E., A new step-by-step aligner for very large scale integration (VLSI) production, 9
McFarland, D. L., Evaluation of deep-UV proximity mode printing, 32
Naguib, H. M., Macroelectronic photolithography: I—the optimization of photoresist application by roller coating, 74
Novotny, Donald B., Experimental photoresist sensitometry and exposure modeling, 184
Nyyssonen, D., Calibration of optical systems for linewidth measurements on wafers, 119
Ruddell, R. L., Optimization of photoresist processing for step-and-repeat exposure systems, 84
Schick, H. C., Photoresist coated chromium-on-glass substrate parameters and their effect on photomask yield, 142
Schmidt, Michael A., Goal-oriented process tuning, 194
Schneider, William C., Intermachine registration errors of wafer step-and-repeat systems, 26
Schnitzer, Arthur P., Automatic yield prediction from photomask inspection data, 132
Selbrede, Steven C., Dimensional control and profile contouring of plasma etched polysilicon, 53
Shaughnessy, T. P., Optimization of photoresist processing for step-and-repeat exposure systems, 84
Speck, Richard P., Practical aspects of automatic mask inspection, 127
Tsai, N. H., Characterization of in-plane wafer distortion in an n-channel metal oxide semiconductor (NMOS) production process, 104
Vesper, C., Registration and wafer distortion in the production environment, 96
Wittekoek, S., Step and repeat wafer imaging, 2
Wourms, Bob, Characterization of Al-Si plasma etching and its effect on metal oxide semiconductor (MOS) electrical parameters, 61

SUBJECT INDEX

Al-Si plasma etching and its effect on metal oxide semiconductor (MOS) electrical parameters, characterization, 61
Aligner for very large scale integration (VLSI) production, a new step-by-step, 9
Automatic mask inspection, practical aspects of, 127
Automatic yield prediction from photomask inspection data, 132

Beam exposure system master masks, feature size variation of electron, 110

Calibration of optical systems for linewidth measurements on wafers, 119
Characterization of Al-Si plasma etching and its effect on metal oxide semiconductor (MOS) electrical parameters, 61
Characterization of in-plane wafer distortion in an n-channel metal oxide semiconductor (NMOS) production process, 104
Chromium-on-glass substrate parameters and their effect on photomask yield, photoresist coated, 142
Coated chromium-on-glass substrate parameters and their effect on photomask yield, photoresist, 142
Coating, macroelectronic photolithography: I—the optimization of photoresist application by roller, 74
Comparison of silver halide systems as applied to today's advanced semiconductor requirements, 156
Contouring of plasma etched polysilicon, dimensional control and profile, 53
Control and profile contouring of plasma etched polysilicon, dimensional, 53

Deep-UV proximity mode printing, evaluation of, 32
Dimensional control and profile contouring of plasma etched polysilicon, 53
Direct wafer steppers, nearly perfect reticles, 19
Distortion in an n-channel metal oxide semiconductor (NMOS) production process, characterization of in-plane wafer, 104
Distortion in the production environment, registration and wafer, 96

Electrical parameters, characterization of Al-Si plasma etching and its effect on metal oxide semiconductor (MOS), 61
Electron beam exposure system master masks, feature size variation of, 110
Errors of wafer step-and-repeat systems, intermachine registration, 26
Etched polysilicon, dimensional control and profile contouring of plasma, 53
Etching and its effect on metal oxide semiconductor (MOS) electrical parameters, characterization of Al-Si plasma, 61
Etching, tradeoffs between uniformity, selectivity and pattern fidelity in plasma, 46
Evaluation of deep-UV proximity mode printing, 32
Experimental photoresist sensitometry and exposure modeling, 184
Exposure modeling, experimental photoresist sensitometry and, 184
Exposure system master masks, feature size variation of electron beam, 110
Exposure systems, optimization of photoresist processing for step-and-repeat, 85

Feature size variation of electron beam exposure system master masks, 110
Fidelity in plasma etching, tradeoffs between uniformity, selectivity and pattern, 46

Glass substrate parameters and their effect on photomask yield, photoresist coated chromium-on-, 142
Goal-oriented process tuning, 194

Halide systems as applied to today's advanced semiconductor requirements, a comparison of silver, 156

Imaging, step and repeat wafer, 2
In-plane wafer distortion in an n-channel metal oxide semiconductor (NMOS) production process, characterization of, 104
Inspection data, automatic yield prediction from photomask, 132
Inspection, practical aspects of automatic mask, 127
Intermachine registration errors of wafer step-and-repeat systems, 26

Kodak high resolution plates, relationship between micro and macro reproduction characteristics of, 175

Linewidth measurements on wafers, calibration of optical systems for, 119

(MOS) electrical parameters, characterization of Al-Si plasma etching and its effect on metal oxide semiconductor, 61
Macroelectronic photolithography: I—the optimization of photoresist application by roller coating, 74
Macro reproduction characteristics of Kodak high resolution plates, relationship between micro and, 175
Mask inspection, practical aspects of automatic, 127
Masks, feature size variation of electron beam exposure system master, 110
Master masks, feature size variation of electron beam exposure system, 110
Measurements of wafers, calibration of optical systems for linewidth, 119
Metal oxide semiconductor (MOS) electrical parameters, characterization of Al-Si plasma etching and its effect on, 61
Metal oxide semiconductor (NMOS) production process, characterization of in-plane wafer distortion in an n-channel, 104
Micro and macro reproduction characteristics of Kodak high resolution plates, relationship between, 175
Model 900 projection stepper, optics in the, 39
Modeling, experimental photoresist sensitometry and exposure, 184

(NMOS) production process, characterization of in-plane wafer distortion in an n-channel metal oxide semiconductor, 104
N-channel metal oxide semiconductor (NMOS) production process, characterization of in-plane wafer distortion in an, 104
Nearly perfect reticles for direct wafer steppers, 19
New step-by-step aligner for very large scale integration (VLSI) production, 9

Optical systems for linewidth measurements on wafers, calibration of, 119
Optics in the Model 900 projection stepper, 39
Optimization of photoresist application by roller coating, macroelectronic photolithography: I—the, 74
Optimization of photoresist processing for step-and-repeat exposure systems, 84

Parameters, characterization of Al-Si plasma etching and its effect on metal oxide semiconductor (MOS) electrical, 61
Parameters and their effect on photomask yield, photoresist coated chromium-on-glass substrate, 142
Pattern fidelity in plasma etching, tradeoffs between uniformity, selectivity and, 46
Perfect reticles for direct wafer steppers, nearly, 19
Photolithography: I—the optimization of photoresist application by roller coating, macroelectronic, 74
Photomask inspection data, automatic yield prediction from, 132
Photomask yield, photoresist coated chromium-on-glass substrate parameters and their effect on, 142
Photoresist application by roller coating, macroelectronic photolithography: I—the optimization of, 74
Photoresist coated chromium-on-glass substrate parameters and their effect on photomask yield, 142
Photoresist processing for step-and-repeat exposure systems, optimization of, 84
Photoresist processing, ultrathick, 64
Photoresist sensitometry and exposure modeling, experimental, 184
Plasma etched polysilicon, dimensional control and profile contouring of, 53
Plasma etching and its effect on metal oxide semiconductor (MOS) electrical parameters, characterization of Al-Si, 61
Plasma etching, tradeoffs between uniformity, selectivity and pattern fidelity in, 46
Plates, relationship between micro and macro reproduction characteristics of Kodak high resolution, 175
Polysilicon, dimensional control and profile contouring of plasma etched, 53
Practical aspects of automatic mask inspection, 127
Prediction from photomask inspection data, automatic yield, 132
Printing, evaluation of deep-UV proximity mode, 32
Process tuning, goal-oriented, 194
Processing for step-and-repeat exposure systems, optimization of photoresist, 84
Processing, ultrathick photoresist, 64
Production environment, registration and wafer distortion in the, 96
Production, a new step-by-step aligner for very large scale integration (VLSI), 9
Production process, characterization of in-plane wafer distortion in an n-channel metal oxide semiconductor (NMOS), 104
Profile contouring of plasma etched polysilicon, dimensional control and, 53
Projection stepper, optics in the Model 900, 39
Proximity mode printing, evaluation of deep-UV, 32

Registration errors of wafer step-and-repeat systems, intermachine, 26
Registration and wafer distortion in the production environment, 96
Relationship between micro and macro reproduction characteristics of Kodak high resolution plates, 175
Repeat wafer imaging, step and, 2
Reproduction characteristics of Kodak high resolution plates, relationship between micro and macro, 175
Resolution plates, relationship between micro and macro reproduction characteristics of Kodak high, 175
Reticles for direct wafer steppers, nearly perfect, 19
Roller coating, macroelectronic photolithography: I—the optimization of photoresist application by, 74

Selectivity and pattern fidelity in plasma etching, tradeoffs between uniformity, 46
Semiconductor (MOS) electrical parameters, characterization of Al-Si plasma etching and its effect on metal oxide, 61
Semiconductor requirements, a comparison of silver halide systems as applied to today's advanced, 156
Sensitometry and exposure modeling, experimental photoresist, 184
Silver halide systems as applied to today's advanced semiconductor requirements, a comparison of, 156
Size variation of electron beam exposure system master masks, feature, 110
Step-and-repeat exposure systems, optimization of photoresist processing for, 84
Step-and-repeat systems, intermachine registration errors of wafer, 26
Step and repeat wafer imaging, 2
Stepper, optics in the model 900 projection, 39

Stepper, nearly perfect reticles for direct wafer, 19
Substrate parameters and their effect on photomask yield, photoresist coated chromium-on-glass, 142

Tradeoffs between uniformity, selectivity and pattern fidelity in plasma etching, 46
Tuning, goal-oriented process, 194

UV proximity mode printing, evaluation of deep-, 32
Ultrathick photoresist processing, 64
Uniformity, selectivity and pattern fidelity in plasma etching, tradeoffs between, 46

(VLSI) production, a new step-by-step aligner for very large scale integration, 9
Variation of electron beam exposure system master masks, feature size, 110

Wafer distortion in an n-channel metal oxide semiconductor (NMOS) production process, characterization of in-plane, 104
Wafer distortion in the production environment, registration and, 96
Wafer imaging, step and repeat, 2
Wafer step-and-repeat systems, intermachine registration errors of, 26
Wafer steppers, nearly perfect reticles for direct, 19
Wafers, calibration of optical systems for linewidth measurements on, 119

Yield, photoresist coated chromium-on-glass substrate parameters and their effect on photomask, 142
Yield prediction from photomask inspection data, automatic, 132